



# Australian Bureau of Statistics

## CensusAtSchool Australia

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### Resources



### CaSQ 31 - Is My Class Green? Comparing Samples and Population

You can download this activity as a rich text file (RTF) using the link at the bottom of the page.

#### How to: Get a Random Sample from CensusAtSchool

Go to the CensusAtSchool Random Sampler to download a sample.

**Reference year:** *(Select year)* **Sample size:** *The same size as your class*

**Select questions:** *What actions do you take at home to conserve the environment*

**Location:** *Select location* **Year level:** *(Select a range of year levels)*

*To protect privacy there is a rule built into the sampler that the requested sample size cannot exceed 10% of the respondents for the parameters entered.*

**Question from the CensusAtSchool questionnaire:** 'What actions do you take at home to conserve the environment?'. Students answered yes or no to:

- 'My household has installed a water tank',
- 'My household has installed a water saving shower head',
- 'I take shorter showers',
- 'I turn off the tap while I brush my teeth',
- 'I turn off appliances (e.g. TV, computer, gaming consoles) at the power point' and
- 'My household recycles our rubbish'.

Below is a table showing the summary results from all of the students who completed CensusAtSchool in 2010.

**Percentage of students who take actions in the home to conserve the environment by year level. Summary for 2010**

| Actions taken to conserve water                       | Percentage of "Yes" respondents by Year level |      |      |      |      |      |      |      |      |
|-------------------------------------------------------|-----------------------------------------------|------|------|------|------|------|------|------|------|
|                                                       | 4 or below                                    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   |
| My household has installed a water tank               | 45.0                                          | 38.4 | 37.1 | 42.6 | 39.5 | 40.6 | 40.6 | 43.4 | 38.0 |
| My household has installed a water saving shower head | 40.1                                          | 45.9 | 44.7 | 44.1 | 46.3 | 48.0 | 45.6 | 50.4 | 51.7 |
| I take shorter showers                                | 74.3                                          | 72.9 | 66.4 | 59.8 | 50.6 | 45.9 | 44.1 | 43.9 | 46.8 |
| I turn off the tap while I brush my teeth             | 91.8                                          | 91.0 | 89.6 | 88.6 | 87.2 | 85.1 | 85.0 | 83.0 | 84.5 |
| I turn off appliances                                 | 51.7                                          | 50.6 | 47.0 | 47.1 | 43.7 | 42.7 | 46.5 | 43.6 | 45.0 |
| My household recycles our rubbish                     | 79.8                                          | 82.5 | 82.1 | 80.7 | 82.3 | 79.9 | 78.1 | 82.1 | 77.7 |

<http://www.abs.gov.au/websitedbs/cashome.nsf/51c9a3d36edfd0dfca256acb00118404/bec9728d241c8bc0ca25775700826917!OpenDocument#environment>

**Task:**

1. Conduct a class survey of the question 'What actions do you take at home to conserve the environment?'. There is a table overleaf to help you. Your teacher could put a table on the board for you to copy.
2. Use your class data to complete the following table

| Actions taken to conserve water                                               | Tally of "Yes" | Tally of "No" | Total | Percentage of "Yes" | Percentage of "No" |
|-------------------------------------------------------------------------------|----------------|---------------|-------|---------------------|--------------------|
| My household has installed a water tank                                       |                |               |       |                     |                    |
| My household has installed a water saving shower head                         |                |               |       |                     |                    |
| I take shorter showers                                                        |                |               |       |                     |                    |
| I turn off the tap while I brush my teeth                                     |                |               |       |                     |                    |
| I turn off appliances (e.g. TV, computer, gaming consoles) at the power point |                |               |       |                     |                    |
| My household recycles our rubbish                                             |                |               |       |                     |                    |

3. Use the table provided at the top of the page (Percentage of students who take actions in the home to conserve the environment by year level, Summary for 2010) to select summary data from the appropriate year level to match your class data. Create an appropriate graph comparing the percentage of 'yes' respondents between the national CensusAtSchool summary data and your class data.

4. Is your class green? Write a short paragraph explaining the differences and similarities between your class and the CensusAtSchool summary data.
5. If you took a random sample from CensusAtSchool, or you conducted another survey of a different class, do you think the results would differ from your class data? Explain.

**Extension:**

Take a random sample from CensusAtSchool and compare this random sample with your class data and the CensusAtSchool summary data.

| Student Name |  | What actions do you take at home to conserve the environment?. yes/no |                                    |                      |                                       |                     |                 |
|--------------|--|-----------------------------------------------------------------------|------------------------------------|----------------------|---------------------------------------|---------------------|-----------------|
|              |  | Installed water tank                                                  | Installed water saving shower head | Take shorter showers | Turn the tap off while brushing teeth | Turn off appliances | Recycle rubbish |
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| 40 |  |  |  |  |  |  |  |

Download the Activity:

RTF

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